



JAGLOWSKI
ORTHOPEDIC
INSTITUTE

Total Knee Replacement Rehabilitation Protocol

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**** The following instructions represent general guidelines. Your personal instructions may be slightly different and will be conveyed to you by Dr. Jaglowski if this is the case. Post-operative instructions, physical therapy protocols, and useful information regarding your post-op care may be found electronically at www.jagsortho.com.****

Phase I: Post-op weeks 1-3

- Ankle Pumps
- Calf Stretch
- Quad Series
- Hamstring Series
- Towel Roll Stretch
- Patella Mobilization
- P/AROM: Seated and Wall slides
- Stationary Bike (no resistance) when ROM allows

Phase II: Post-op weeks 3-12

- PROM: Wall Slides
- Bridge Series
- Seated HS Curls
- Single Leg Balance (stable surface to unstable)
- 3-way Straight Leg Raises Standing
- Heel and Toe Raises
- Standing Terminal Knee Extensions
- Wall Sits
- Reverse Lunges
- Light leg press
- Gait Training
- Stationary Bike light resistance
- Pool therapy: Aqua Jogging (when incisions healed)

Phase III: Post-op weeks 12-24

- 1/3 Knee bends as tolerated
- Step ups: up, down, lateral
- Resisted Lateral Step
- Split squat
- Resisted Sliders and Skaters
- Leg press
- Treadmill Walking/swimming/elliptical

Phase IV: Return to Activities/Sports

- Initial Agilities/Proprioceptive Challenges
- Progress sport specific skills
- Return to activities as tolerated and as strength allows

Return to Sports:

- Hiking: 3-4 months
- Tennis: 4-5 months
- Road bike: 3-4 months
- Ski: 4-5 months
- Golf: 4-5 months

SEE BELOW FOR EXERCISE DESCRIPTIONS

TOTAL KNEE ARTHROPLASTY PHASE I: PROTECTION/RANGE OF MOTION (Post-op weeks 1-3)

ANKLE PUMPS



- With a straight leg, flex, and point ankle back and forth
(1-2 minutes every hour)

CALF STRETCH



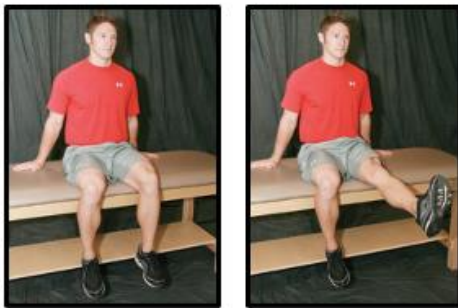
- Using towel/strap, slowly pull toes towards you until a stretch is felt in the calf/hamstrings
(30-45 seconds, 3-5 sets, 2-3 times per day)

QUAD SERIES



- Gently tighten thigh muscle, drawing the patella towards the hip and straightening the back of the knee towards the bed
- Hold 5 seconds
- Relax and repeat

(15 reps, 1-2 sets, 3-4 times per day)



STRAIGHT LEG RAISE



- Tighten quadricep muscle until leg is **fully extended**
- Slowly lift 6 inches off the table, then lower
- Relax and repeat

(15 reps, 1-2 sets, 3-4 times per day)

HAMSTRING SETS



- Bend knee up to 20-30 degrees
- Dig heel into table toward buttocks to contract hamstrings without moving the knee
- Hold for 5 seconds
- Relax and repeat

(15 reps, 1-2 sets, 3-4 times per day)

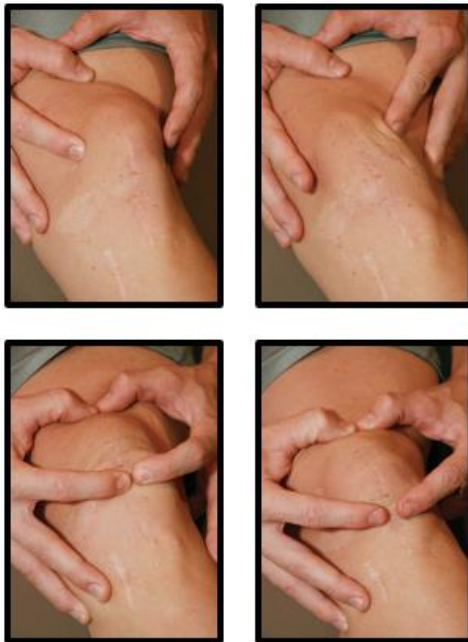
TOWEL ROLL STRETCH



- Sit on bed with leg outstretched and towel roll or foam roll under ankle.
- Let gravity help you push your knee down, and straighten it as much as possible
- If tolerable, gently tighten quad muscle to attain further extension

(15-30 seconds, 3-5 sets, 2-3 times per day)

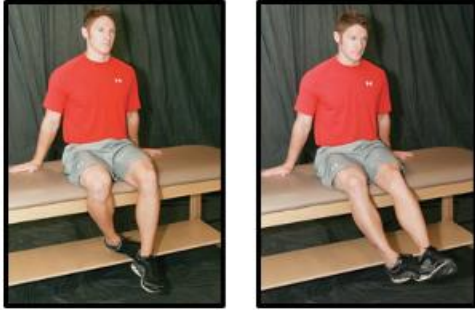
PATELLA MOBILIZATION



- Move patella side-to-side for 2-3 minutes, up and down for 2-3 minutes
- **Avoid** pushing down on patella
- Move quadriceps and patellar tendon side to side for 2-3 minutes each direction

(10 minutes, 3-4 times per day)

SEATED FLEXION/EXTENSION



- Support involved leg with uninvolved leg under, bend and straighten knee in pain free range
- Be aware of any range of motion precautions set forth by your doctor

(10-15 minutes, 3-4 times per day)

WALL SLIDES



- Lie on back with feet on wall
- Support involved leg with uninvolved leg
- Slide bad foot up and down wall passively

(10-15 minutes. 3-4 times per day)

STATIONARY BIKE



- Set bike seat so that knee extends to approximately 5 degrees at bottom of stroke
- NO resistance is used until approved by therapist

(Max time 20 minutes, 2 times per day)

TOTAL KNEE ARTHROPLASTY PHASE II: INITIAL STRENGTHENING AND CONTINUED RANGE OF MOTION

(Post-op weeks 4 and beyond)

WALL SLIDES



- Lie on back with feet on wall
- Support involved leg with uninvolved leg
- Slide bad foot up and down wall passively

(10-15 minutes, 3-4 times per day)

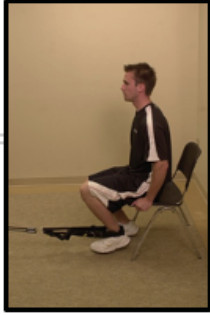
BRIDGING



- Lie on your back with arms at your sides and knees bent
- Squeeze glutes and raise buttocks while keeping core stable
- Slowly return to start position and repeat

(3 sets of 10 reps, 2 times per day)

SEATED HAMSTRING CURLS



- sit in chair with feet on floor
- place band around involved ankle
- draw involved foot back toward the legs of the chair keeping foot on floor

(3 sets of 10 reps, 2 times per day)

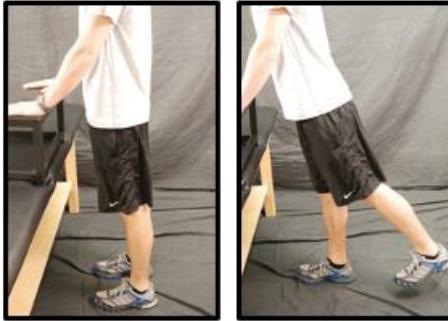
SINGLE LEG BALANCE



- stand with uninvolved leg lifted from the ground
- Maintain your balance by using a chair or other stable surface if needed
- Maintain position as steady as possible for 30 seconds
- When advised by your therapist, add a piece of foam or dyna disk under your foot to increase the difficulty of this exercise
- Eyes may be closed to further increase difficulty

(30 seconds each leg, 3-4 times per day)

THREE POINT HIP EXERCISES



- Stand with hands supported on edge of table and feet shoulder width apart
- Extend hip backwards while keeping back straight
- Return to starting position and repeat

(10 reps, 3 sets, 1-2 times per day)



- Stand with hand supported on edge of table and feet shoulder width apart
- Lift outside leg off the ground and sideways while keeping hips level
- Return to starting position and repeat

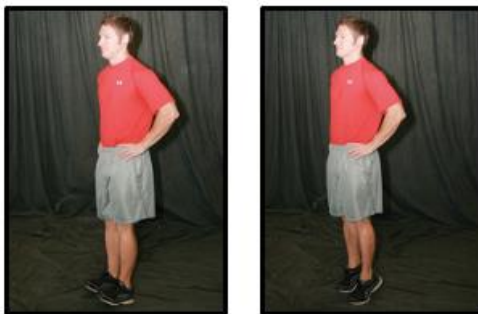
(10 reps, 3 sets, 1-2 times per day)



- Stand with hand supported on edge of table and feet shoulder width apart
- Keeping back straight, raise one leg up until your thigh is approximately parallel with the ground
- Return to starting position and repeat

(10 reps, 3 sets, 1-2 times per day)

HEEL AND TOE RAISES



- Stand with your feet ~shoulder width apart
- Keeping back straight, raise up on your heels
- Return to starting position
- Raise up on your toes

(15 reps, 1-2 sets, 3-4 times per day)

WALL SITS



- Slide back down a smooth wall until knees are slightly less than a right angle.

(Hold for 1-3 minutes, repeat 1-2 times per day)

REVERSE LUNGES



- Standing with feet ~shoulder width apart and take a step backward and go into a lunge position
- Be sure to keep core tight. DO NOT let knee go forward in front of toes. Keep knee from falling in or out (don't be knock kneed)

(15 reps, 1-2 sets, 1-2 times per day)

LIGHT LEG PRESS



- Lie on back on leg press
- Keep feet shoulder width apart
- consult your therapist to determine appropriate resistance

(15 reps, 1-2 sets, 1-2 times per day)

STATIONARY BIKE (LIGHT RESISTANCE)



- Set bike seat so that knee extends to approximately 5 degrees at bottom of stroke
- Use light resistance while peddling, reduce resistance if painful

(Max time 20 minutes, 2 times per day)

AQUA JOGGING

- Perform with flotation belt or AQX suit in deep water (feet should not touch bottom)
 - Mimic an easy jogging motion, maintaining a slight forward lean, and use normal running arms (no paddling)
 - Goal is easy knee motion, not forward movement
 - Perform for 10 minutes
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